

AMENDMENTS TO THE DRAWINGS

The attached sheet of drawings includes changes to FIG. 3.

REMARKS

The paper is filed in response to the non-final official action of December 3, 2009, wherein: (a) claims 1-3, 5, 7-13, 15-18, 20-23, 25-33, 35, 51, 52, 61-65, 71, 72 and 75 stand allowed; (b) claims 44-46, 60, 73 and 74 stand rejected under 35 U.S.C. § 112, ¶ 2; and (c) claim 24 stands rejected under 35 U.S.C. § 103 based on a suggested combination of Okazaki et al. (5,905,030) and Lilienfeld-Toal (6,484,044).

I. Objections to the Drawings

The Examiner has indicated that the previously submitted drawing amendment was not entered for lack of the proper label "replacement sheet." Therefore, Applicant is resubmitting the amended Figure 3, with the appropriate label. The Examiner has also objected to the drawings filed on October 1, 2004 as being dark and grainy. On September 24, 2009, Applicant submitted a complete set of formal drawings correcting the originally-filed drawings. The Examiner's attention is therefore directed to that submission, as it overcomes the objection to the drawings as being dark and grainy.

II. Objections to the Claims

Applicant has amended claim 44 to correct the reference to "especially a stent," as well as the reference to "especially a flow-through cell." New claim 76 has been added reciting that the cannula of claim 44 may be a stent.

III. Rejections of the Claims

Only a single prior art rejection stands, that of claim 24, which has been amended to recite:

Infrared (IR) measuring device, for essentially simultaneous, qualitative and quantitative determination of components in nonaqueous and aqueous systems, comprising:

at least one measuring unit having at least one ATR body and at least one infrared light source, wherein the at least one ATR body has at least two plane, essentially parallel boundary surfaces and is transparent or partially transparent to measuring radiation and has a refractive index which is higher than that of the medium to be investigated adjacent to at least one boundary surface where the measuring radiation is middle

infrared radiation (MIR) and can undergo attenuated total reflection at least six times on at least one of the plane, parallel boundary surfaces of the at least one ATR body,

wherein the at least one infrared light source comprises

a quantum cascade laser able to emit electromagnetic radiation in at least two different defined frequencies or one or more frequency bands, or

a plurality of quantum cascade lasers each being able to emit electromagnetic radiation at one or more frequencies or frequency bands, or

a radiation source emitting a multi-wavelength spectrum.

Support for this amendment may be found in paragraph [0062] of the published U.S. application (US-2006-0043301 A1) as well as in original claim 4.

The amendment recites three alternative infrared light sources, the first two of which reference one or more quantum cascade lasers similar to the recitations in allowed claim 1, for example. The third alternative recites a radiation source emitting a multi-wavelength spectrum.

The Examiner rejected claim 24 (pre-amendment) based on a suggested combination of Okazaki et al and Lilienfeld-Toal. Neither of these references, however, can be fairly said to teach, suggest, or otherwise provide for the recited subject matter, in particular an ATR body in combination with a multi-wavelength infrared light source.

Okazaki et al. discloses only a monochromatic infrared light source (3). The technique described therein neither discloses nor suggests the use of a radiation source emitting a multi-wavelength spectrum, whether generated by a quantum cascade laser or otherwise. Okazaki et al. is limited to the identification of a single specific substance; and because only a single wavelength is used, the technique is unsuitable for essentially simultaneous determination of a plurality of components in a nonaqueous or aqueous system. Instead, in Okazaki et al., the analysis is based on a comparison between a background measurement of a substrate solution (see, e.g., step S4 in FIG. 4) and a spectrum measurement of a measurement solution in which the substrate solution and the enzyme solution are mixed in step S7. Okazaki et al. 8:58 - 9:6.

Turning to Lilienfeld-Toal, that publication does disclose a measurement that results from using a plurality of different wavelengths in the mid-infrared-range for excitation. But the wavelengths are only used to match the relative maxima and minima of the absorption spectrum of Glucose in body tissue, blood or water. Other than that, Lilienfeld-Toal is limited to determining the concentration of only one specific substance. Furthermore, the mid-infrared laser light is not used in a spectroscopic application, such as Okazaki et al., but instead is purely absorbed to excite photoacoustic signals that emit from sub-skin surface absorption. Therefore, Lilienfeld-Toal cannot be described as teaching or suggesting a technique for simultaneous determination of a plurality of components, as provided for in the specific recitations of claim 24. Further to this distinction, Lilienfeld-Toal even mentions that other unknown components in its testing (i.e., testing for multiple materials) would disturb measurements. Lilienfeld-Toal 2:40-52.

In any event, none of the cited art provides for the now-recited subject matter of claim 24. The rejection of claim 24 is traversed and reconsideration respectfully requested.

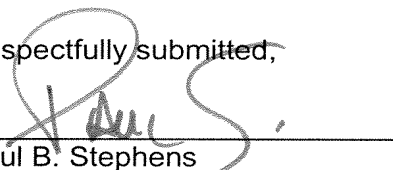
IV. Conclusion

In light of the foregoing, a prompt indication of allowability of claims 1-3, 5, 7-13, 15-18, 20-33, 35, 44-46, 51, 52, 60-65, and 71-75 is earnestly solicited.

Should the examiner wish to discuss the foregoing, or any matter of form in an effort to advance this application toward allowance, he is urged to telephone the undersigned at the indicated number.

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Respectfully submitted,

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